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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/041,736	01/10/2002	Kinya Ono	Q68034	4032

7590 12/19/2005

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EXAMINER
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DALEY, CHRISTOPHER ANTHONY

ART UNIT	PAPER NUMBER
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2111

DATE MAILED: 12/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/041,736	<b>Applicant(s)</b> ONO ET AL.	
	<b>Examiner</b> Christopher A. Daley	<b>Art Unit</b> 2111	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 21 September 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-3, 5-10, 12-16 and 18-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-10, 12-16 and 18-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. Claims 1 – 3,5-10,12-16,18-20 are pending. Claims 4,11, and 17 are cancelled.

#### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-2,6,8-9,13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saito (US6275889) in view of Mosgrove (US6928503) and in further view of Lee (US6721831).

4. As to claims 1, 8, and 14 Saito discloses a data transmission/reception system, method, and apparatus comprising:

a plurality of information transmitters connected to nodes on a bus, for transmitting/receiving data through a connection established between the nodes (Saito teaches in figure 9 of a data/transmission/reception system comprising a plurality of information transmitters (80a – 80e) connected on a bus B10 that allows the transmitting and receiving of data, COL. 1, lines 59 – 67);

a connection establishing device for establishing a connection at each node (Saito teaches of connection C10 that affords connection between the nodes, COL. 1 lines 64 – 67); and

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a connection status information referring device for referring to the connection status information (Saito teaches of connection status information device for referring to status information in figure 10 , COL. 2, lines 14 – 25);

Saito does not disclose a connection status information holding device for holding connection status information indicating a managing status of bus resources while updating it during the execution of the connection establishment at each node

However Mosgrove teaches a connection status information holding device for holding connection status information indicating a managing status of bus resources while updating it during the execution of the connection establishment at each node

(Figure 6 illustrates the mapping of the resources from the nodes on a bus to be included in the bus manager device map as illustrated in figure 3, COL. 8, lines 24 – 37. It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Saito and Mosgrove as it is essential to manage and track the resources of a bus system, COL. 2, lines 21 – 30.

The modification would have been obvious because one of ordinary skill in the art would want to use the bus manager to achieve the desired management and tracking of bus resources without much overhead impact, COL. 2, lines 13 – 20); and

Saito and Mosgrove does not disclose a processing executing device for executing predetermined processing to avoid unmanageable status of the bus resources when it is determined that the managing status of the bus resources is out of a permissible range (However, Lee teaches of executing a predetermined process to avoid

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unmanageable status of the bus resources when it is determined that the managing status of the bus resources is out of a permissible range

Lee teaches in figure 4 of a process to determine the status of bus resources by checking the CFR value of each node, Col. 4, lines 32 – 67. It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teaching of Saito, Mosgrove and Lee as the status of each bus resource is important to know when reassignment of resources are taking place, Col. 2, lines 9 – 25.

The modification would have been obvious because one of ordinary skill in the art would need to know how best to prioritize bus resources, COL. 2, lines 26 - 34); and Lee teaches wherein the managing status of the isochronous resources indicated by the connection status information includes, in addition to an unknown status, a valid status, an invalid status, and a status of processing being executed (The resource releaseable register, RRR, within the connection status information comprises status information which would comprise said statuses, COL. 2, line 55 – COL. 3, line 14).

5. As to claims 2, 9, and 15, Saito discloses the data transmission/reception system, method and apparatus wherein a plurality of connection establishments are provided corresponding to types of the connections, and the connection status information holding device holds the connection status information for each connection establishment (a plurality of connection establishments such as oPCR of AV 80e into iPCR 80b, and also into iPCR 80d, with point-to-point, or broadcast connection types as

illustrated in figure 9. Saito teaches of connection status information holding device IMPR, which comprises status information, COL1. Lines 40 – 65).

6. As to claims 6,13, and 19, Saito discloses the data transmission/reception system, method and apparatus, wherein the bus is a serial bus compliant with IEEE 1394 Standard, and the plurality of connection establishments include establishment of a Broadcast-out connection, establishment of a Broadcast-in connection, and establishment of a Point-to-point connection (serial bus being IEEE 1394, and a plurality of connection establishment being Broadcast-out connection, establishment of a Broadcast-in connection, and establishment of a Point-to-point connection, COL. 1, lines 67, COL. 2, lines 38 – 42, figure 9).

7. Claims 3,5,10, 12,16, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saito (US6275889) in view of Mosgrove (US6928503) and in further view of Lee (US6721831) an in further view of Ishida et al (US6839347) herein after referred to as Ishida.

8. As to claims 3,10, 16, Saito/Mosgrove/Lee do not explicitly disclose the data transmission/reception system, method and apparatus, wherein the processing executing device generates bus resetting if a predetermined number or more of bits of the connection status information set in unknown statuses are present among connections to be established on the bus (However, Ishida teaches of the control device of said system generating a bus reset command when power is applied, or nodes have

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been disconnected from the bus, thus COL. 6, lines 31 – 36. It would have been obvious to one of ordinary skill in the art at the time of the invention to use the controller of Ishida in Saito as Ishida teaches of using said controller in various embodiment, and Saito would like to get explicit status information on all node to be aware of system functioning, COL. 22, lines 28 – 45).

9. As to claims 5, 12, and 18 Ishida discloses the connection status information holding device updates the connection status information to an unknown status if a transaction in each processing results in a timeout or a data error (the reflection of data error in a status field, COL. 3, lines 10 - 15. It would have been obvious to one of ordinary skill in the art at the time of the invention to use the controller of Ishida in Saito as Ishida teaches of using said controller in various embodiment, and Saito would like to get explicit status information on all nodes to be aware of functioning system, COL. 22, lines 28 – 45).

10. As to claims 7 and 20, Ishida disclose the data transmission/reception system, method and apparatus, wherein the plurality of connection establishments includes restoration of the Broadcast-out connection, restoration of the Broadcast-in connection, and restoration of the Point-to-point connection in accordance with connection restoration carried out to restore the connection at each node before a passage of predetermined time after resetting of the connection established following the bus

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resetting (restoration of said connections after a bus reset and all nodes are properly configured in a manner that allows for a functioning system, COL. 6, lines 34 – 39).

### ***Response to Arguments***

Applicant's arguments with respect to amended claims 1, 8, and 14 have been considered but are moot in view of the new ground(s) of rejection.

With respect to the applicant's argument that Saito does not teach a connection status information holding device for holding connection status information indicating a managing status of isochronous resources as bus resources while updating it during the execution of the connection establishment at each node. The office points to the following teaching:

Mosgrove teaches a connection status information holding device for holding connection status information indicating a managing status of bus resources while updating it during the execution of the connection establishment at each node

(Figure 6 illustrates the mapping of the resources from the nodes on a bus to be included in the bus manager device map as illustrated in figure 3, COL. 8, lines 24 – 37.

With respect to the applicant's argument that Saito does not teach wherein the managing status of the isochronous resources indicated by the connection status information includes, in addition to an unknown status, a valid status, an invalid status, and a status of processing being executed, the office points to the following teaching:

Lee teaches wherein the managing status of the isochronous resources indicated by the connection status information includes, in addition to an unknown status, a valid



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status, an invalid status, and a status of processing being executed (The resource releaseable register, RRR, within the connection status information comprises status information which would comprise said statuses, COL. 2, line 55 – COL. 3, line 14).

### ***Conclusion***

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

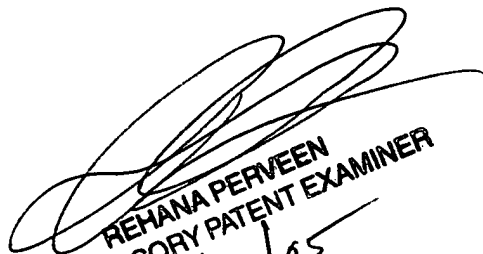
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher A. Daley whose telephone number is 571 272 3625. The examiner can normally be reached on 9 am. - 4p m.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rehana Perveen can be reached on 571 272 3676. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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12/11/2005

  
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12/12/05